THE

HISTORY

OF AN

EXTRAORDINARY

INTROSUSCEPTION.

By JOHN COAKLEY LETTSOM, M. D. F. R. S. and A. S.

WITH AN

ACCOUNT OF THE DISSECTION.

By Mr. THOMAS WHATELY, SURGEON.

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History and Dissection of an extraordinary Introsusception.

By John Coakley Lettsom, *M. D. F. R. S. and A. S.*

Read at the Royal Society, March 16, 1786.

A. B. a child four years old, was first indisposed about the middle of September, 1784. When I was consulted, which was on the 7th of October, the symptoms resembled those of a cholera morbus. At this period, however, the diarrhœa had ceased; but the patient continued frequently to vomit, especially after taking nourishment.

On the 20th a dysentery succeeded, with mucous and bloody stools, which ceased after a few days continuance, when she nearly recovered her former state of health, without even reaching after her usual food. She was now removed into the country; and I did not hear of her again till December, when she was brought to town, on account of the return of the dysentery, which was, at this period, accompanied with a troublesome tenesmus, and a considerable degree of fever.

By anodyne medicines, and the use of opiate clysters, these complaints were occasionally moderated, and sometimes they totally ceased for a few days, but seldom longer, and the intervals of relief gradually shortened; the attacks became also more violent, commencing with violent rigors, and fever succeeding; the pulse grew weaker and weaker, and the patient became extremely extenuated in flesh; and towards the conclusion of this

month,

month, after repeated vomitings of a dark-coloured fluid, like coffee grounds, it finiſhed its painful exiſtence.

Bleeding, before the debility was become alarming, afforded no material reſpite. Fomentations to the abdomen, and tepid bathing of the whole body, were equally ineffectual. Anodyne ſtarch clyſters afforded ſome truce, but it could not be durable; the nature of the miſchief was too momentous to afford any hope of permanent relief, as the diſſection after death will evince.

Examination of the Body after Death, by Mr. THOMAS WHATELY, *Surgeon.*

Upon expoſing the cavity of the abdomen, the ſigmoid flexure of the colon immediately preſented itſelf to view, enlarged to the ſize of that of an adult, as alſo a large diſtended inteſtine appearing to be at firſt view a continuation of the tranſverſe arch of this gut; and at the place where this ſeeming arch joined the ſigmoid flexure, there appeared a firm or tight band, as if ſurrounding the inteſtine, and here it was ſtrongly bound down.

On a nicer inſpection this arch was found to be a portion of the ileum, which paſſing within the band was incloſed in the ſigmoid flexure of the colon.

All the parts between this portion of the ſmall inteſtines and the ſigmoid flexure, amongſt which were the caput coli, cæcum with its appendix, and the whole of the great arch of the colon, could no where be ſeen. The want of theſe parts, the enlarged ſize of the ſigmoid flexure, and the hard feel evidently ſhewing that it contained ſome ſubſtance, left no room to doubt, but that all the miſſing portion of the inteſtines

was

was contained within the ſigmoid flexure. A finger introduced into the anus felt a round ſubſtance in the rectum, with an opening in the middle, not unlike the os tincæ. This ſubſtance did not adhere, the finger paſſing round it freely, between it and the internal coat of the rectum. The liver, the urinary bladder, and ſmall inteſtines, were the remaining parts which firſt appeared when the parietes of the abdomen were turned back.

Upon looking for the omentum, a portion of it only was found attached to the ſtomach, the remaining part evidently paſſed within the band into the ſigmoid flexure.

The ſtomach was tied much cloſer to the ſpine than natural, by the diſplacing of the omentum and great arch of the colon. The gall bladder was as large as that of an adult, and was full of thin bile, but without obſtruction to its paſſage into the duodenum.

The general external appearance of all the inteſtines was natural, except ſlight inflammation in ſome places.

The cavity of the abdomen alſo contained more than half an ounce of thin pus; and on the right ſide were two ligamentous peritoneal ſubſtances, very much on the ſtretch; one formed by an extenſion of that part of the peritoneum called ligamentum * coli dextrum; the other at the place where the colon is connected to the peritoneum over the right kidney.

As the further inveſtigation of this uncommon diſeaſe required particular attention, I cut out all the parts connected with it, bringing away the whole ſigmoid flexure of the colon,

* I have obſerved, that in ſome children the caput coli is naturally connected much more looſely than in others. It is probable, that the preſent caſe was one of thoſe.

with

with the rectum, anus, uterus, and bladder; alſo a part of the arch of the ileum with the omentum, and a portion of the ſtomach and duodenum.

The Drawing * (Tab. VII.) was taken by Mr. POLE, Surgeon, of the natural ſize, and the ſmall inteſtines added from a ſketch I made before the parts were removed from the body.

I then made a longitudinal inciſion through the coats of the ſigmoid flexure of the colon, from the anus to the band at its upper part. Within the cavity, which was lined with mucus, appeared a large inteſtine, taking on the form of the ſigmoid flexure, which on examination proved to be the great arch of the colon and the cæcum inverted; ſo that the villous coat was external, and in contact with the villous coat of the ſigmoid flexure, through the whole extent of both; at the extremity of which inverted inteſtine were two apertures, viz. the large one felt by the finger *per anum*, and a ſmaller one.

It now plainly appeared, that the band was formed by the upper part of the ſigmoid flexure being drawn tight by the inverſion of the part of the colon immediately above it, the further progreſs of which was prevented by the peritoneal connections at that place not giving way; which cauſed it to appear as a band tying the inteſtine down.

This incloſed inteſtine was very much diſeaſed, the upper part next the band being highly inflamed, and as it approached the caput coli in the rectum gradually terminated in mortification, ſo that for three inches from its extremity it was perfectly black.

No adheſion whatever appeared between the coats of theſe inteſtines, as this inverted colon might be lifted out of the ſigmoid flexure to the band.

* Mr. BASIRE very accurately reduced the ſcale under my own inſpection from which the engravings are taken.

Upon

Upon cutting through the coats of this inverted inteſtine it was obſerved, that they were very much thickened and diſeaſed; the enlargement of the gut, which was fully equal to that of an adult, conſiſting chiefly in a thickening of its various muſcular fibres *. The peritoneal coat, now become its internal ſurface, was every where highly inflamed, but not black as on the outſide, the inflammation gradually increaſing from the band to the extremity of the cæcum. Through the whole length of its cavity was included a portion of the ileum uninverted, with its connecting meſentery, which communicated with the larger aperture above deſcribed at the extremity of the cæcum, and with the arch of the ileum above the band. It was contracted in ſize, but was nearly free from thickening or inflammation; ſome adheſions only connected it with the coats of the colon; but the portion above the band was at leaſt four times as large, thus reſembling in magnitude as well as occupying the place of the great arch of the colon. Beſides this inteſtine, this cavity contained a portion of the omentum continued from that above, paſſing within the band, and extending half-way to the rectum; an enlarged cluſter of meſenteric glands, of the ſize of a pigeon's egg, which juſt emerged from under the band, and were connected with a portion of the meſentery above; and, at the lower part, the appendix vermiformis larger and longer than natural, but likewiſe uninverted, the mouth of the cavity of which formed the ſmaller opening in the cæcum before mentioned. It was at this point of the diſſection that the ſame ingenious Surgeon drew the figure, tab. VIII.

* The increaſed action of theſe muſcles, neceſſarily attendant on their inverted ſtate, would increaſe the ſize of their muſcular fibres, as happens in the bladder, when it acts frequently.

As

As long as the parts had been in this very uncommon ſituation, the fæces muſt have paſſed through the valve of the colon, directly into the very loweſt part of the rectum, without ever coming in contact with any portion of the large inteſtines.

And in the laſt week of the child's life, when a prolapſus frequently happened, the fæces paſſed directly from the ileum into the night-ſtool.

The arch of the ileum, in default of that of the colon, formed the reſervoir for the fæces; which, with the partial interruption to their paſſage by the ſtricture occaſioned by the band, probably cauſed its enlargement. But the fæces contained in it were of a thinner conſiſtence, and wanted the fætor uſually met with in the colon.

EXPLANATION OF THE PLATES.

TAB. VII.

A general view of the inteſtines, in the ſituation in which they appeared on firſt opening the body,

aa. The enlarged ileum, putting on the appearance of the great arch of the colon.

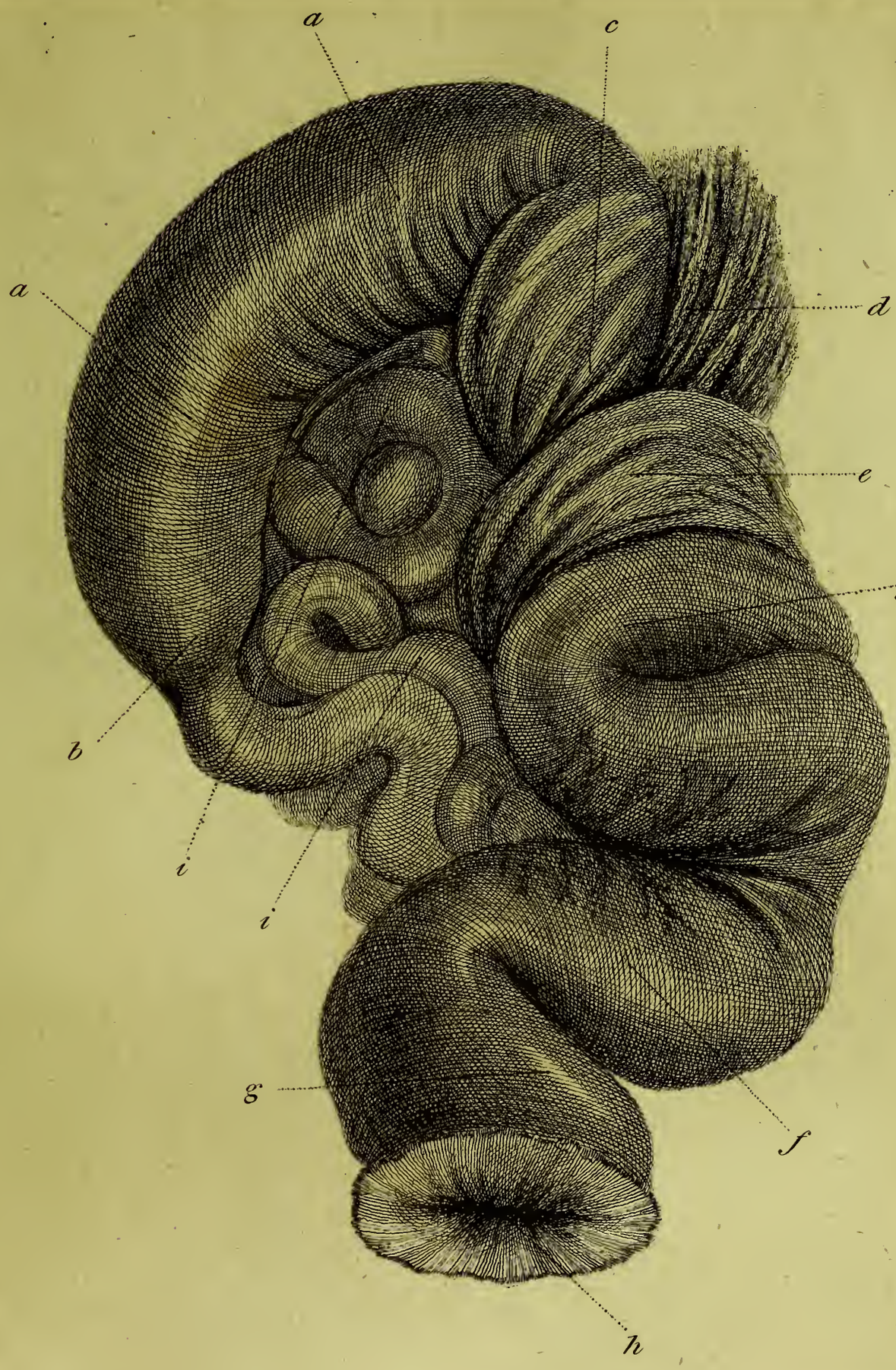
b. The ſudden enlargement of the ileum.

c. The ileum paſſing within the band into the colon.

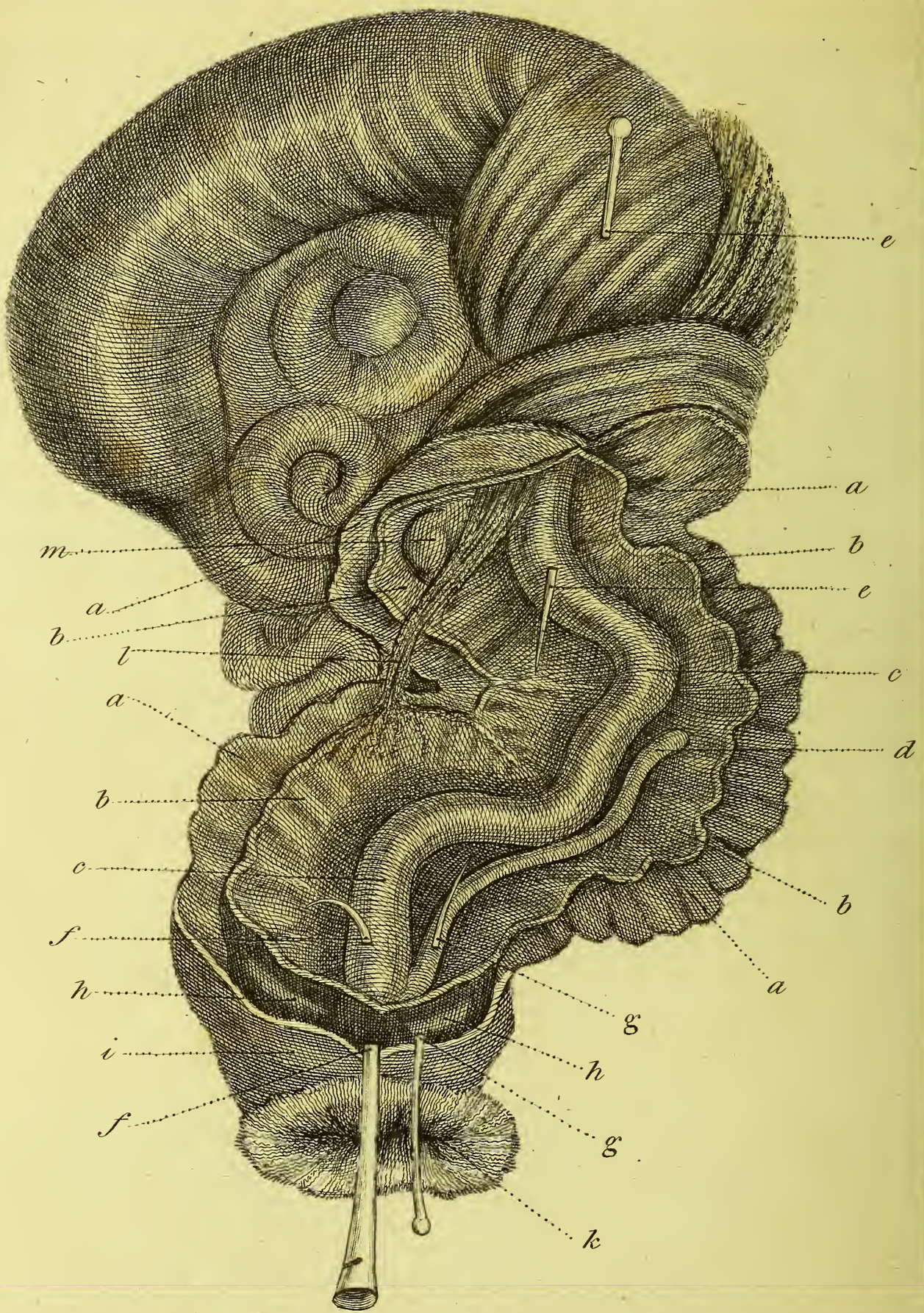
d. Part of the omentum paſſing within the band.

e. The inteſtinal band, formed by the inverſion of the great arch of the colon immediately above it ceaſing at this place.

ff,



Basire Sc.



Bayfield Sc.

ff. The ſigmoid flexure of the colon, containing the introſuſcepted portion of the alimentary canal.

g. The rectum diſtended with the ſame.

h. The anus.

ii. Small inteſtines of the natural ſize and healthy appearance.

TAB. VIII.

The ſame view, with the ſigmoid flexure laid open, and the edges turned back, to ſhew the contained parts; and likewiſe the introſuſcepted colon laid open, to diſplay the uninverted ileum and appendix vermiformis contained within it.

aaaa. Internal ſurface of the ſigmoid flexure of the colon ſpread open.

bbbb. The external ſurface (by the inverſion now become internal) of the great arch of the colon within the ſigmoid flexure ſpread open.

cc. Part of the ileum uninverted.

d. Appendix cæci uninverted.

ee. A probe piercing the diſtended ileum, paſſed within the band, and brought out in another portion of the ileum, contained within the inverted colon below the band.

ff. A blow-pipe paſſed through the valve of the colon, where it opened into the rectum, and brought out through the coats of the ileum above.

gg. A probe paſſed into the natural opening of the appendix cæci, and brought out above.

hh. The cæcum inverted.

i. Part of the rectum.

k. The anus.

l. Part of the omentum, attached to the peritoneal ſurface of the great arch of the colon, and continued from the portion above.

m. The cluſter of enlarged meſenteric glands.